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great by
deeds, not by
birth"

-Chanakya

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**Network Memory, Cultural Distance and the Ebb and Flow of
International Resources – Evidence from 20 years of Professional Player
Transfers to Big-five European Soccer Leagues**

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ABSTRACT

Although the psychological and inter-personal dynamics of boundary spanners leading to ebb and flow of network exchanges as well as its deleterious effects on firm profitability has been established, little is known about how organizations could moderate this ebb and flow. We develop a network memory and international cultural distances based approach to solving this conundrum. We argue that organizations' prior network properties of trust and status moderate ebb and flow of resources. This moderation fades when source and target organization's or target manager's cultural distances are large. We find robust empirical support for our hypotheses and discuss implications for theory and practice.

Keywords: Ebb and Flow, interorganizational networks, network memory, cultural distance, resources

INTRODUCTION

This manuscript presents our research which develops a view of the international ebb and flow of valuable resources across a large inter-organizational network, its network memory moderators and cultural distance constraints of this moderation. The need to develop an understanding of what could moderate this ebb and flow (Jarvenpaa & Majchrzak, 2016) emerges from the deleterious nature of speeding up organizational activities (Hashai, Kafouros, & Buckley, 2015). We develop and test hypotheses of how network memory, specifically of nodal trust and status (Coleman, 1988) may moderate the ebb and flow dynamic. Further we develop and test hypotheses of how this moderating influence is limited by cultural distance (Hofstede, 1983). In this first section of this paper, we develop the hypotheses pertaining to (a) ebb and flow, (b) network memory based moderation, and (c) cultural distance constraints. We first develop the theory and hypotheses, then we discuss methods where we outline the data employed and empirical testing results, after which we present the results and finally discuss implications for theory, practice and outline limitations of our study.

Ebb and flow

Psychological and emotional self-regulatory processes of organizational boundary spanners result in alternating periods of information sharing and protecting (Jarvenpaa & Majchrzak, 2016) in an inter-organizational network. Self-regulatory mechanisms in human behavior shape purposeful actions which are motivated by forethoughts (Bandura, 1991). With the help of these forethoughts, people shape their course of actions. In addition to external influences, actions are subjected to self-reactive inward looking capabilities of people which render control over “thoughts, feelings, motivation, and actions”. Information is a differentiating and intangible resource which influences competitive advantage of firms. Nevertheless, the growing connectedness of the firm in its network makes it imperative to address the prospect of information spill over. On the other hand, if network connections are highly controlled, a firm despite possessing superior information and resources may not be able to garner commercial benefits (Hurmelinna-Laukkanen, 2011). Therefore, there is always a sharing-protecting tension between the inter-organizational dyads. This tension is self-regulated through multiple level interactions between boundary spanners and their respective organization

(Jarvenpaa & Majchrzak, 2016). Through their feedback, the firm learns new knowledge and also modifies to retain its salience. As a result, the firm takes a strategic approach to the extent and timing of information sharing.

Although information sharing among firms in inter-organizational ties is imperative to creation of new knowledge and information, the risk of information spill over controls the extent of subsequent interaction. The risk of information spill over risks exists when resources are shared by the controlling firm, or if the information is jointly controlled by the participating firms. Initially, the transacting firms would pool their resources meant for sharing or exchange in order to develop their own competencies (Ding & Huang, 2010). In order to identify potential partners for exchange, firms rely on past experiences of competencies development. However, when the focal firm behaviour is driven by a high level of trust in its partner and commitment to the inter-organizational relationships, the focal firm becomes vulnerable to risks of appropriation of resources which it does not intend to share (Ertug, Cuypers, Noorderhaven, & Bensaou, 2013) in the first place. This might lead to loss of competitive advantage to the exchanging partner firm. One way to reduce the risk of appropriation is to avoid collaborating with other firms. However, withdrawing from the network entirely increases the risk of losing competencies because of the lack of updating and creation of information and knowledge. So, one of the ways by which firms can balance between information sharing and protection is by controlling the duration of resource sharing and exchange. Firms can create a pseudo lean period or stage inability to supply resources for sharing. At one point of time, they might engage actively in sharing their resources. After a certain duration, when the firm feels that its active role in the partnership is having its toll in terms of spillage of valuable information, firms may choose to restrain from sharing resources. Regularity in engagement and disengagement in the inter-organizational resource transfer brings predictability in the firm and the past experiences help to formulate new plans for future endeavours (Hashai et al., 2015). This pattern will be more pronounced when the resource in question is one of the core resources of the firm. Therefore, we hypothesize that:

- Hypothesis 1: Valuable resource sharing of an organization will ebb and flow over time.

Network memory

Through exchange and sharing of resources, firms enter into an implicit network of relationships. The strategic approach to effective information sharing and protecting is also influenced by the network structure of the firm. Network arrangements are considered to be a cornerstone for the economic development of the firm as they influence knowledge transfer, influence the acquiring of resources, and drive capability building (Zaheer & Bell, 2005). Networks are embedded in the social structure (Granovetter, 1985). Trust and commitment, triad closure, and status position of the firm in the network shape the structural elements of the network (Coleman, 1988). Degree of closeness is a dimension of network structure accounts for shared meanings and trust over a period of time, thus reducing opportunistic behavior (Coleman, 1988). Network closure leads to efficient routines due to common mental models and smooth flow of information (Soda, Usai, & Zaheer, 2004). Network closure develops gradually as the level of interaction among the network partners grows over a period of time, thereby creating and reinforcing trust. Interactions and enabled by memory of past transactions in which the transacting partners in the network develop an understanding of each other and create norms for the future. For this reason, as the level of network closure increases over time, so efficiency of routines improves and shared norms are enhanced. This in turn translates to better performance. As the risk of opportunistic behaviour is contained, firms have more confidence in sharing and exchanging resources. T:

- Hypothesis 2: Network closure will moderate the ebb and flow of resource sharing.

Central network positions facilitate acquiring new knowledge and discover new opportunities early through its unique interaction to other actors (Tsai, 2001). Network position of the firms predicts its ability to access external information. Moreover, firms can access those resources which are available from its network partners. So the value of a network can be leveraged when the focal firm is connected to a superior alter and when the focal firm has the capability to utilize the advantages obtained from the superior alter (Zaheer & Bell, 2005). Connection with a prominent partner firm also helps the focal firm to establish itself and signals its competitiveness in the network (Koka & Prescott, 2008). In such an arrangement, the firm which enjoys superior status position would have early access to resources and hence confront moral hazards of withdrawal or holdup before others do (Ding &

Huang, 2010). In order to offset that risk, they would demand more benefits. Therefore, the firm with the superior status position in the network would engage in resource sharing or exchange with a less important firm only when its benefits from incoming knowledge are indeed greater. Hence, in case of resource sharing or exchange with a superior partner firm, the difficulty of the trade-off between cost of information spill over and benefits of improving competitiveness, is less. Firms of a lesser status gain more by sharing or exchanging its resources with a prominent network partner firm. In order to maintain its connectedness to the prominent network actor, it would involve in increased volume of resource sharing or exchange as compared to other firms in the network. From the above discussion, the following can be hypothesized.

- Hypothesis 3: The status of the firm's position in the network will moderate the ebb and flow pattern of resource sharing.

Cultural distance

The efficacy of network structure is brought into question when cross-border resource exchange takes place. Variations in national cultures are known to influence various international strategic choices. In a study based on managerial networks in a multinational enterprise (MNE), it has been seen that cultural distance is a strong predictor of social ties (Manev & Stevenson, 2001). The effectiveness and efficiency of the social ties is based on trust, which is in turn is influenced by the cultural milieu. Lesser differences in culture result in easy communication and better mutual cultural appreciation, which in turn, facilitates exchange of information and knowledge (Luo, 2002). It has been shown that interpersonal trust develops due to shared norms and values (Stahl & Voigt, 2008). Consequently, trust and uncertainty are the determining factor in resource sharing and exchange. Hence for culturally distant firms, network structure is unlikely to influence resource sharing and exchange. In addition to that, cultural distance affects network interactions even across cultural borders. On one hand, both the transacting firms can belong to similar culture, where the firm level cultural differences are less. On the other hand, even if the firms are not culturally identical, the cultural distance (Hofstede, 1984) between the transacting managers can be less. In both the cases, when cultural differences are less,

effects of network structure will be more pronounced due to the level of trust involved. Accordingly, we can hypothesize the following (4 – 7):

- Hypothesis 4: Cultural distance between partners and focal organizations constrains the moderating effect of network trust on the ebb and flow pattern of resource sharing.
- Hypothesis 5: Cultural distance between partners and focal organizations constrains the moderating effect of network status on the ebb and flow pattern of resource sharing.
- Hypothesis 6: Cultural distance between partners and managers of focal organizations constrains the moderating effect of network trust on the ebb and flow pattern of resource sharing.
- Hypothesis 7: Cultural distance between partners and managers of focal organizations constrains the moderating effect of network status on the ebb and flow pattern of resource sharing.

METHODS

Sample and Data Collection

In order to empirically test our hypotheses we need to employ a longitudinal dataset of inter-organizational, cross border trade in high value resource providers. This requires a setting where the nature of valuable resources as well as the regulations governing their exchange has not changed significantly over a relatively long period of time. Exchange of professional player talent in European soccer fits this bill (see Table 1 for nationalities and number of players transferred to the big-five leagues over the past two decades). In soccer, as in other professional team sports leagues, key revenue streams are ticket revenue, in-stadia sales, broadcasting rights, merchandise sales and sponsorship income (Ertug & Castellucci, 2013). Across sports and countries, there are significant differences in the ownership, appropriation and division of these income streams amongst the clubs of a league (and indeed the contingencies to a club's membership in a league itself). In professional European soccer, many players command high value and open up another important revenue stream

for the clubs (Antonioni & Cubbin, 2000; Bryson, Frick, & Simmons, 2013). Revenue side differences apart, on-field performance is a common concern, it is closely followed by fans and is complementary to the organization's revenue strategies such as when it comes to commercial bargaining power with sponsors and broadcasters (Ertug & Castellucci, 2013). The vibrant European soccer playerⁱ market has hitherto been the setting for research that is largely focussed on the valuation of soccer players (Bryson et al., 2013).

[INSERT TABLE 1 ABOUT HERE]

We choose this setting for the following three reasons. First, it allows us to record player acquisitions (arrivals) at each club for seasons within which the broad rules governing transfers have remained more or less stable. Second, about 82% of players who are acquired by big-five clubs in Europe are acquired from other big-five clubs, evidence of intertwined interests between the clubs. Third, high quality players who have plied their trade as professionals in Europe are from 129 distinct nationalities – a global footprint that allows us to test our cultural distance hypotheses. See Exhibit 1 for a partial view of this player transfer network from the 2016 season. Clubs simultaneously play the role of suppliers and buyers of high quality soccer player talent. Sectoral focus may limit the generalizability of our findings for the following reasons. First, operationalization of the dependent variable is induced through the sample and ideas of what constitutes inter-organizational trade of valuable resources may differ from industry to industry. Independent variables that moderate the ebb and flow may also differ from one industry to another and the variables used here may be significantly different from those relevant in other industries. Therefore, these limitations should be borne in mind while generalizing our findings. Having said that, within industry variance in the variables and uncovering findings in a sample with restricted variance is more difficult, thereby lending credence to our the findings (Bansal, 2005; Ertug & Castellucci, 2013).

[INSERT EXHIBIT 1 ABOUT HERE]

Dependent Variable

Our dependent variable $\Delta_{i,t}$ is the difference between the number of new players acquired by a club 'i' in season 't' and the number of new players it acquired in the previous season, 't-1'. Higher the value of the dependent variable (in absolute terms), larger has been the change in terms of its new player acquisitions. Please see Table 2 for descriptive statistics and correlation matrix of the dependent and independent variables.

[INSERT TABLE 2 ABOUT HERE]

Explanatory Variables

We model the ebb and flow by employing a lag of the dependent variable, $\Delta_{i,t-1}$. In addition to the lagged dependent variable, the first set of explanatory variables are calculated for each node of the prior season's player transfer network, since information about nodal trust and status properties tends to persist in the network (Soda et al., 2004). We constructed the season's inter-organizational resource transfer network for each season from 1995 to 2015 using publicly available data at www.transfermarkt.com. All player arrivals to clubs which featured in the big-five leagues in that particular season are recorded from our data source. In this network, a club that either competed in the big-five leagues during the season or transferred players to the big-five leagues is a node in the network. Two nodes (clubs) between whom there was a player transfer in the season are joined by an edge. We model this as an undirected, un-weighted graph in recognition of the fact that information and resources flow through this edge in a bi-directional manner. Talent management teams of clubs, soccer managers, scouts, agents, player families, doctors and attorneys all form an intricate network through which transfer opportunities are recognized and fructified. Each transfer passes through multiple stages from need and opportunity recognition, search, due-diligence, negotiations, medical tests and transfer execution. A season's inter-organizational (inter-club) resources transfer experiences bestow upon the clubs structural and compositional attributes (Soda et al., 2004; Tsai, 2001; Zaheer & Bell, 2005). These nodal attributes, in turn, enable or constrain the club from acquiring valuable resources (players) in the subsequent season. In this whole network of inter-organizational resources transfers, we calculate the explanatory variables (see Tables 2, 3 and 4). $X_{iC_{i,t-1}}$, is based on the clustering coefficient of node 'i' during season 't-1' and $X_{iE_{i,t-1}}$ is based on the Eigen vector

centrality of node 'i' during season 't-1' (Borgatti, Everett, & Johnson, 2013). $X_1C_{i,t-1}$ measures the extent of club triad closures of a club at (t-1), with higher triad closure of a node promoting business trust in its immediate network vicinity (Borgatti et al., 2013). It takes the value 1 when the node's (club's) clustering coefficient is greater than the average for all clubs in that season (t-1) and the value 0 otherwise. $X_1E_{i,t-1}$ measures the status of the club in the transfer network (Borgatti & Cross, 2003) at (t-1) and clubs with higher status have better bridge accesses to high value resources in the network. It takes the value 1 when node's (club's) Eigen vector centrality (Borgatti et al., 2013) is greater than the average for all clubs in that season (t-1) and the value 0 otherwise.

The second set of explanatory variables pertain to cultural distance between (a) player nationality and club nationality, and (b) player nationality and manager nationality. We use Hofstede cultural dimension values for player nationalities as well as for club nationalities and manager nationalities (Hofstede, 1983, 1984). Using the four dimension values, we calculate the cultural distance for each transfer completed in each season (Kogut & Singh, 1988; Manev & Stevenson, 2001). The dimension used are Power Distance (PDI), Individualism (IDV), Uncertainty Avoidance (UAV) and Masculinity (MAS). An average cultural distance between players and clubs is calculated for all clubs in season 't-1'. Subsequently, if a club's average cultural distance of transfers (between players and club) in season 't-1' is *lesser* than the average cultural distance of *all* the clubs in that season, then the explanatory variable $X_2O_{i,t-1}$ takes the value 1, else it takes the value 0. Similarly, an average cultural distance between players and managers of clubs in season 't-1' is calculated. Subsequently, if a club's average cultural distance of transfers (between players and manager) in season 't-1' is *lesser* than the overall average cultural distance of *all* the clubs in that season, then the explanatory variable $X_2M_{i,t-1}$ takes the value 1, else it takes the value 0.

Control Variable

The big-five soccer leagues of Europe (England, France, Spain, Germany and Italy) are all open leagues with the bottom two or three clubs by their season-ending standings being relegated to the in the subsequent season to the lower league, allowing the top two or three clubs of the lower league to be 'promoted'. Season ending league standings of the previous season (X_3_{t-1}) influences player

transfers in the following important ways. First, top players normally have ‘release’ clauses in their contracts that allow them to transfer to a different (non-relegated) club. Second, league standings determine clubs’ participation in the lucrative Champions League or Europa League which are Europe wide soccer club competitions open only to those teams that finish high on their respective country’s league table. Third, clubs tend to strengthen their squads in preparation for European competition to withstand the crowded match schedules that ensue. Fourth and final, players prefer to play in clubs with good prospects in Europe to be able to enhance their personal reputations. Any club whose standing moves up (down) significantly experiences significant increase (decrease) in their player purchase budgets. Inter-temporal ebb and flow of player transfers, network moderations as well as cultural constraints work through the ambition level of the club which gets set by its season end standing.

Model Specification

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (1)$$

$$H1: \beta_1 < 0$$

Dependent variable ($\Delta_{i,t}$) is the change in the number of new player arrivals for club ‘i’ in season ‘t’ as compared to the previous season ‘t-1’. Model (1) represents the ebb and flow process in a fixed effects longitudinal regression framework. We hypothesize that the auto-regressive coefficient is negative leading to the ebb and flow process. Soccer clubs have rich histories and multiplex relationships that are unobservable. Individual clubs have longstanding relationships with service providers such as talent scouts, agents and attorneys whose influence on player transfers is significant. Current players at a club and their agents can be mapped but we are unable to observe the development of these relationships over time. Fixed-effects specification is under the assumption that unobserved variables have time invariant values and time invariant effects on the dependent variable. Therefore, any changes in the dependent variable can be ascribed to influences other than the group’s fixed characteristics. We check this assumption using the Hausman test and find (Table 4) that this assumption is a reasonable one to make. Hausman test Chi-sq (2) = 8.42, p=0.01. Null hypothesis

‘difference in coefficients between RE and FE not systematic’ rejected. We check for independence of error terms and find that they actually follow a AR (1) process, hence we employ a fixed effect longitudinal regression model with auto-regressive error terms (Singer & Willett, 2003).

We propose, as outlined above, that past network closure (Soda et al., 2004) and past network status moderate the ebb and flow of new player arrivals in the current time period.

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \beta_2 * \Delta_{i,t-1} * X_{1C_{i,t-1}} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (2)$$

$$H1: \beta_1 < 0, H2: \beta_2 > 0$$

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \beta_2 * \Delta_{i,t-1} * X_{1E_{i,t-1}} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (3)$$

$$H1: \beta_1 < 0, H2: \beta_2 > 0$$

Interaction of lagged dependent with the network trust and status dummy variables examines the network position interaction with the ebb and flow of player transfers, over time, for each given club.

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \beta_2 * \Delta_{i,t-1} * X_{1C_{i,t-1}} * X_{2O_{i,t-1}} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (4)$$

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \beta_2 * \Delta_{i,t-1} * X_{1E_{i,t-1}} * X_{2O_{i,t-1}} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (5)$$

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \beta_2 * \Delta_{i,t-1} * X_{1C_{i,t-1}} * X_{2M_{i,t-1}} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (6)$$

$$\Delta_{i,t} = \alpha_i + \beta_1 * \Delta_{i,t-1} + \beta_2 * \Delta_{i,t-1} * X_{1E_{i,t-1}} * X_{2M_{i,t-1}} + \gamma * \text{Season standing}_{i,t-1} + u_{it} \quad (7)$$

$$\text{In models (4) through (7) – } H1: \beta_1 < 0, H2: \beta_2 > 0$$

Interaction of lagged dependent with the network (trust and status) dummy variables and cultural distance dummy variables examines the cultural distance based constraint on network position’s moderation of the ebb and flow of player transfers, over time, for each given club. In all the models we control for a club’s previous season standing which may be influential in determining the club’s player transfer strategy in the current season.

Data Analysis

Table 3 presents the summary of the dependent and explanatory variables and it shows the inter-temporal ebb and flow of dependent as well as independent variables. Our model dataset comprises of observations of 81 clubs of the big-five leagues, with more or less equal representation of each of the big-five leagues. While representation of leagues is more or less balanced, the analysis panel is unbalanced – 81 distinct clubs feature over an average of 3.5 panels (maximum of 12). Clubs that are relegated in one season would not appear in our analysis dataset in that season (dependent variable is not defined), the subsequent season (lagged explanatory variables are not defined) as well as in the season after next (since lagged explanatory variables are themselves differenced). Clubs that were inactive in the transfer market during a particular season are also excluded from the analysis, in that and subsequent seasons as described above. Time-series cross sectional data analysis techniques have been used elsewhere in strategic management literature, as a superior alternative to cross sectional data analysis (Bansal, 2005; Ertug & Castellucci, 2013). This methodology controls for confounding effect of time-invariant and club-specific variables that may have been omitted from the model. To test our model, we used the STATA statistical package. Hausman specification test results suggested that a fixed-effects model was appropriate. All the hypotheses were tested using this panel fixed effects model, testing first the ebb and flow hypothesis (H1), then network trust and status measures moderating with ebb and flow (H2, H3) and then network and cultural distance characteristics together moderating the ebb and flow (H4 – H7). In the next section, we summarize these hypothesis testing results.

[INSERT TABLE 3 ABOUT HERE]

RESULTS

Our hypotheses testing results are presented in Table 4. The panel fixed effects regressions yield broad support for our hypotheses. Overall, we find that 49% to 67% (σ_{fov}) of the variance in the dependent variable – the ebb and flow of transfers, Δ_{it} , (the difference between players transferred in to club ‘i’ during season ‘t’ as compared to previous season) is explained by differences across the clubs (panels). Negative coefficient of the lagged dependent variable (col. 1) indicates statistically significant ebb and flow of transfers in the base model and it holds in all 7 model specifications.

Network status has a statistically significant moderating effect on the ebb and flow of transfers (col. 3), which in turn is constrained by cultural distances between player nationality and club nationality (col. 5) as well as by cultural distance between player nationality and manager nationality (col. 7). It is the combination of above average prior season's Eigen vector centrality (status) and below average prior season's cultural distance between player nationality and target club country ($X_1E_{i,t-1} = 1$ and $X_2O_{i,t-1} = 1$) that moderates the ebb and flow of player arrivals (col. 5). Similarly, it is the combination of above average prior season's Eigen vector centrality (status) and below average prior season's cultural distance between player nationality and manager nationality ($X_1E_{i,t-1} = 1$ and $X_2M_{i,t-1} = 1$) that moderates the ebb and flow of transfers (col. 7). While network trust by itself doesn't have a statistically significant moderating effect on the ebb and flow of player arrivals (col. 2) its positive coefficient ought to be noted. Further, within the constraints of cultural distance between player nationality and destination club nationality (col. 4 - $X_1C_{i,t-1} = 1$ and $X_2O_{i,t-1} = 1$) as well as within the constraints of cultural distance between player nationality and manager nationality (col. 6 - $X_1C_{i,t-1} = 1$ and $X_2M_{i,t-1} = 1$), network trust does indeed moderate the ebb and flow of transfers. Previous season's standing is not significant in any of the models, ebb and flow of player arrivals is not systematically linked to prior season's performance by the clubs. We also carried out Hausman tests whose results confirm differences between model coefficients under the two assumptions (random effects and fixed effects). Model F tests are all significant at 1% significance levels. Autoregressive error term coefficient (ρ) takes the values between -0.22 and -0.31 in line with a significant AR (1) process seen in the disturbances. Overall model statistics presented in table 4 confirm appropriateness of the model, fixed effects panel with auto-regressive error terms that we have employed. Since our explanatory variables are all lagged by one year, network positions of trust and status, within cultural distance constraints, do appear to have a causal influence on new player talent sourced by these big European soccer clubs.

[INSERT TABLE 4 ABOUT HERE]

CONCLUSION AND DISCUSSION

We find evidence for the constraint placed by cultural distance between the valuable resources and the reference organization or reference organization's manager. This is in line with studies on the impact of national origin on the managers in the MNE network (Manev & Stevenson, 2001). We expected international background characteristics to matter because countries with low cultural distance have shared perspectives and attributes (Chen & Hu, 2002). These lead to homophily (McPherson & Smith-Lovin, 1987) and creation of strong social ties. Due to cultural similarities, communication channels between the stakeholders operate well even across geographical boundaries. Organizations and managers belonging to culturally distant countries do not enjoy such privilege of communication. The larger the cultural distance, greater is the liability of foreignness (Johanson & Vahlne, 2009) and harder it is to form network of relationships. Hence these clubs also face the liability of outsidership. Organizations whose cultural distance (averaged over all new resources) vis-à-vis the reference organization or manager is high do not appear to benefit from their network position (see Table 2 for correlation matrix, and Table 4 for hypotheses test results). Clubs in culturally distant countries of player origin can be thought of as pre-entry firms in the international arena. Their liability of foreignness arises out of lack of knowledge of the foreign market and it can be mitigated by establishing networks with the host country clubs. It has been seen that firms engaged in learning of foreign markets prior to entry are able to rapidly reduce their liability of foreignness (Peterson & Pederson, 2002). For soccer player talent and clubs in culturally distant nationalities one such attempt is to transfer to the European clubs. Since the objective is to gain knowledge of the foreign market and improve learning, they might select those European clubs which are relatively easy to reach due to lesser cultural distance, and hence easy to negotiate and transact. These 'port of entry' clubs may, in turn, have the network status position needed to transfer players to the bigger European clubs. Thus the transfer secures the future of the resource and makes way for subsequent transfers. Hence, player transfer happens to European clubs irrespective of network position of the European clubs. Our finding emphasize the importance of organizations investing in learning about foreign markets prior to entry (Peterson & Pederson, 2002). We add further empirical support to the idea that cultural distance

matters for social ties (Manev & Stevenson, 2001), knowledge exchange (Luo, 2002) and acts through the need to have shared norms and values in network interactions (Stahl & Voigt, 2008).

Clubs such as Ajax of Amsterdam (see Exhibit 1) may be able to source high value player talent from distant countries such as Colombia on this account. Although, we use only the destination club nationality and destination club manager's nationality to proxy for the cultural distance that the resource (player) and organization (club) are faced with navigating, there are other equally influential, albeit unobservable stakeholders involved. In actuality, the relevant cultural distance may be the one between the player and one of the other management team members, agents or player colleagues. This being unobservable, we employed panel fixed effects and discuss here on the basis of manager nationality and club nationality only.

When cultural distance (Hofstede, 1984) is not too great however, structural features of the prior season's player transfer network, or the so called 'memory' of trust and status (Soda et al., 2004), matter. Positions of superior trust (characterized by high triad closure) and superior status (characterized by greater Eigen vector centrality) both moderate the ebb and flow of player transfers. Superior network status helps with discovering opportunities (Tsai, 2001), organizations learning from superior alters in their network (Zaheer & Bell, 2005), establishing themselves as network constituents (Koka & Prescott, 2008) and helps deal with moral hazard and hold-up risks (Ding & Huang, 2010). Network positions characterized by relative higher levels of closure (high trust) could also moderate the ebb and flow, as far as resources are not too culturally distant. Triad closure (Coleman, 1988), investments in network trust (Ertug et al., 2013) and the develop of efficient routines (Soda et al., 2004) could all play a role in moderating the ebb and flow of the resources transferred.

Like business firms, soccer clubs are embedded in a network of relationship with other firms and clubs in a complex, partly observable and partly unobserved linkages (Johanson & Vahlne, 2009). An insidership in the network can be beneficial for successful exposure and international reach by gaining access to resources and relevant information. Thus, the clubs that are at a large cultural distance, though they can participate in international player transfers, may still remain outsiders. If they are not

part of the relevant network, it becomes difficult to develop their business. Over time and with managerial effort to develop these relationships, network position can become firm specific resource (Hohenthal, 2001). The relationships are socially constructed, hence it is not capital intensive for the culturally proximal clubs to understand the subtleties and importance of investment required to build it. Networking with important partners helps them in creating new knowledge and understand the needs and strategies of their partners. Consequently culturally proximal clubs become privileged source of information in its network and also for distant actors. Therefore, it can be said that the relatively smaller European clubs might play the brokerage role in bridging the culturally distant clubs to acquaint themselves with European soccer and reduce their liability of outsidership. Problems and opportunities related to international player transfers are more country-specific for culturally distant clubs, but for culturally similar clubs, it is more related to relationship and networks.

Contribution to Theory

Our formal modelling of the ebb and flow process (Jarvenpaa & Majchrzak, 2016) governing valuable resources acquisitions builds on the idea of network memory of trust and status (Soda et al., 2004). We integrate in our model potential moderators thereby identifying a strategic lever for controlling costs associated with speed of internal resources exchange (Hashai et al., 2015). We identify a mechanism that indicates the constraints of such moderation, on the basis of cultural distance between resource origins and destination organization and management (Hofstede, 1984). Integration of these ideas in a longitudinal fixed effects modelling framework could contribute to the further examination of intertemporal network dynamics and their cultural context. Our work also adds to the high potential area of social network analysis (Ertug & Castellucci, 2013) in the world of sports organizations.

Managerial Implications

Clubs' transfer market activity positions them for subsequent season's transfers – not only in terms of network trust but also in terms of network status moderating the ebb and flow of soccer player transfers. Given the penalty that acceleration of organizational processes incurs (Hashai et al., 2015) and given managerial ebb and flows (Jarvenpaa & Majchrzak, 2016), the potential of network position

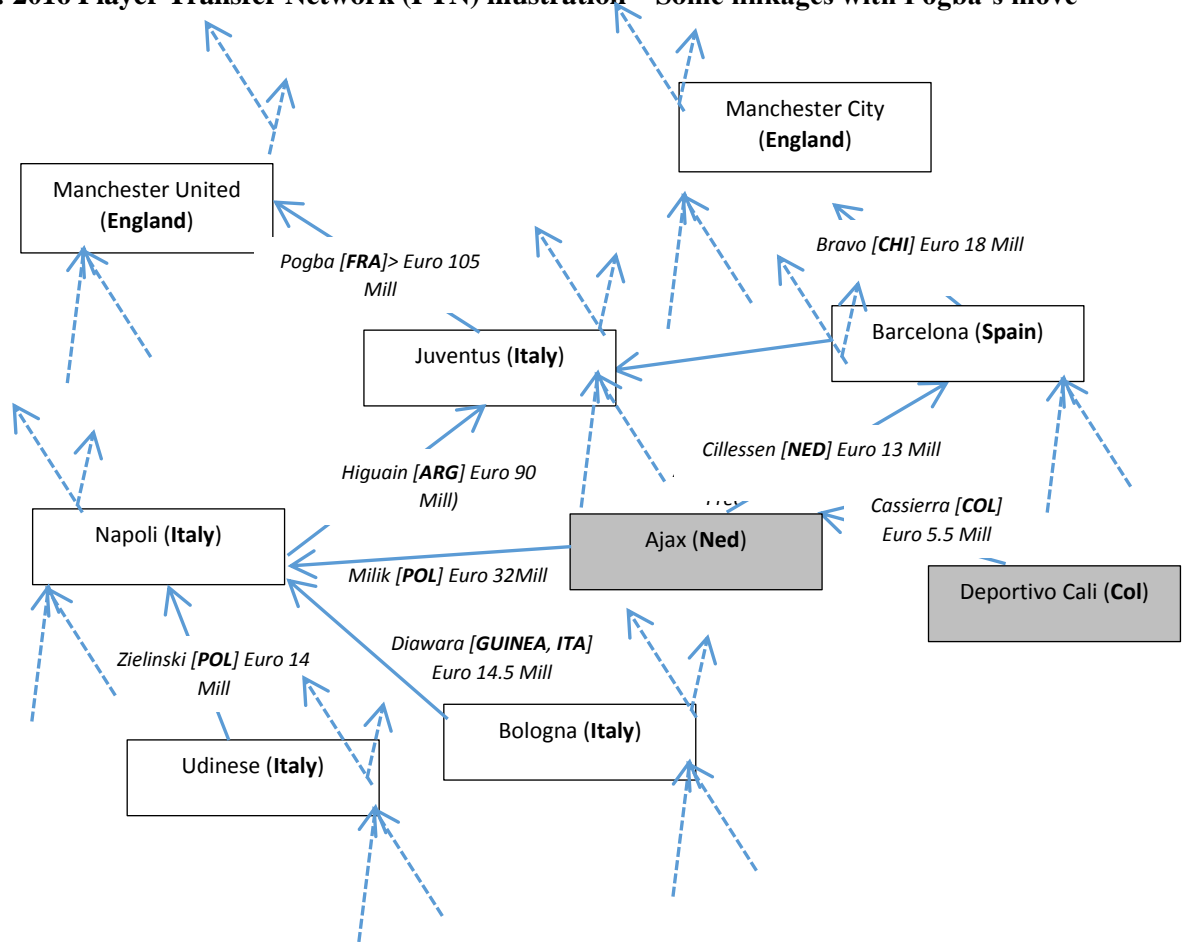
within cultural distance constraints to moderate the ebb and flow has significant import for managers. Given that past network trust, status and cultural distance of transfers all are important when it comes to moderating the ebb and flow in future seasons, managers should pay attention to this far reaching effects, and establish a roadmap for achieving desired network positions vis-à-vis its talent sources in countries afar as well as vis-à-vis its near market trading partners. Managers in other industries could benefit by applying a similar framework on resources (human resources talent) – cultural distance being relatively stable phenomenon.

Limitations

Cultural dimensions and distance measurement is a well-developed field, and we only Hofstede's classic 4-factor model (Hofstede, 1983). The model has had dimensions added, most notably Long Term Orientation (LTO) and Indulgence (IND) (Hofstede, 2001). We chose not to employ the more updated models because we wanted to maximize the use of our rich data, with players originating from 129 distinct countries. That said, use of more refined cultural models, including GLOBE (Global Leadership and Organizational Behavior Effectiveness Research Project) approach of cultural clusters within which dimensions of cultural competencies are explored could yield rich insights into the network moderation of the ebb and flow phenomenon. The unobserved stakeholders, agents in particular, need to be studied more carefully as well. Here, we assume that agents and clubs have long standing relationships which do not change significantly in the time period of the study and that they do not have a time varying effect. We find statistical support for our assumption. Nevertheless, more grounded work could help us even re-configure our player transfer network. The recent high value transfers of both players and managers to Manchester United (England) are thought of to be a result of influential agent – club channels. Player transfer network is modelled as an unweighted graph whereas movements of high value players may have more than an arithmetic impact on other transfers and hence our dependent variable. Although we develop the player transfer network idea on the basis of network memory (Soda et al., 2004), there could be far greater heterogeneity amongst clubs than our assumption that not only past network closure but also past network status also influences the number of current period's player arrivals. This heterogeneity could, in turn, be a function of national cultures

of the big-five. Addressing these concerns could help understand the drivers and moderators of the international resources ebb and flow better.

Figure 1: 2016 Player Transfer Network (PTN) illustration – Some linkages with Pogba’s move



European soccer clubs of their countries are represented by the boxes. Arrows represent players moving from one club to another. Player name and nationality is shown along with the transfer fee at which the player transfer was effected. Players moving at the end of their contract, as free-agents, a process greatly eased by the Bosman ruling (1995) have 'Free' in place of their transfer fee. Napoli's (Italy) slew of player purchases coincides with the sale of Higuain, an Argentinian, to Juventus (Turin based soccer club that is more than 100 years old) for €90 Million.

Table 1: Nationalities (of players) ‘n’ & No: of Players ‘p’ transferred to Big-Five European Clubs – 1995 to 2015 (summarized from transfermarkt.com)

Season (Year)\ Country	ENGLAND		FRANCE		GERMANY		ITALY		SPAIN		TOTAL	
	n	p	n	p	n	p	n	p	n	p	n	p
1995	24	188	27	135	23	170	17	121	23	130	63	733
1996	20	131	37	176	38	183	20	157	27	183	63	821
1997	34	258	35	198	23	108	20	131	24	149	67	837
1998	35	231	29	177	33	181	30	212	29	137	67	930
1999	38	237	33	183	39	193	33	211	27	172	71	985
2000	46	266	31	180	39	170	34	237	33	177	79	1007
2001	37	276	32	228	38	162	36	223	28	173	75	1040
2002	39	223	38	210	32	137	29	215	24	179	78	945
2003	50	297	36	221	40	201	37	233	26	175	84	1100
2004	47	323	37	249	42	204	38	259	32	208	83	1215
2005	52	298	41	254	42	223	32	318	25	219	80	1286
2006	50	298	34	218	41	193	45	346	26	188	84	1222
2007	55	370	46	288	40	166	48	344	33	265	87	1397
2008	23	137	45	246	45	189	45	470	32	239	80	1271
2009	58	320	42	247	45	194	44	485	31	192	85	1423
2010	52	306	40	236	44	224	51	498	38	230	86	1471
2011	54	352	42	287	43	227	51	553	32	228	82	1611
2012	58	412	38	238	41	237	49	629	32	209	84	1697
2013	51	382	44	241	44	196	49	758	39	259	86	1786
2014	47	441	44	231	42	215	61	836	44	274	90	1936
2015	56	399	44	239	39	211	54	624	45	276	86	1691
TOTAL*	97	3615	92	2767	87	2522	84	3735	79	2563	129	13307

Table 2: Descriptive Statistics and Correlation Matrix of New Player Arrivals

Variable	Mean	Std Dev.	$\Delta_{i,t}$	X1C _{t-1}	X1E _{t-1}	X2O _{t-1}	X2M _{t-1}	X3 _{t-1}
$\Delta_{i,t} = Y_{i,t} - Y_{i,t-1}$	1.70	0.38	1	-0.02	0.23	0.07	0.08	0.06
X1C_{t-1} = 1 – Above Avg CC_{t-1}	0.38	0.49		1	0.32	0.29	0.23	-0.12
X1E_{t-1} = 1 – Above Avg EVC_{t-1}	0.36	0.48			1	0.22	0.15	-0.08
X2O_{t-1} = 1 – Below Avg Cul. Dist. PNAT – Destin_{t-1}	0.51	0.50				1	0.78	-0.10
X2M_{t-1} = 1 – Below Avg Cul. Dist. PNAT – MNAT_{t-1}	0.52	0.50					1	-0.07
X3_{t-1} – Previous Season League Standing	7.28	5.29						1

X1C_{t-1} – Above Avg CC_{t-1}

X1E_{t-1} – Above Avg EVC_{t-1}

X2A_{t-1} – Below Avg Cul. Dist. between Player Nationality and Destination Club_{t-1}

X2B_{t-1} – Below Avg Cul. Dist. between Player Nationality and Manager Nationality_{t-1}

X3_{t-1} – Previous Season League Standing

$Y_{i,t}$ – No: of new players arriving in club ‘i’ in season ‘t’. ‘New’ refers to players who have not appeared in the previous season’s squad of club ‘i’.

$$\Delta_{i,t} = Y_{i,t} - Y_{i,t-1}$$

Table 3: Panel Data Summary

Season (year)	# Clubs	Total New Players	Δ New players	Prop. obs Above Avg Clustering Coefficient ($X_1C_{i,t-1} = 1$)	Prop. obs Above Avg Eigen Vector Centrality ($X_1E_{i,t-1} = 1$)	Prop. obs Above Avg Player Nationality to Club Cultural Distance ($X_2O_{i,t-1} = 1$)	Prop. obs Above Avg Player Nationality to Manager Cultural Distance ($X_2M_{i,t-1} = 1$)
1997	5	48		80%	60%	20%	40%
1998	11	119	71	45%	64%	36%	45%
1999	10	122	3	40%	30%	40%	40%
2000	14	150	28	43%	50%	64%	79%
2001	20	194	44	60%	50%	50%	50%
2002	19	195	1	47%	53%	63%	63%
2003	20	229	34	45%	55%	65%	65%
2004	19	256	27	53%	53%	47%	42%
2005	22	282	26	41%	32%	50%	50%
2006	18	242	-40	33%	28%	44%	44%
2007	21	298	56	10%	62%	62%	57%
2008	19	293	-5	32%	32%	58%	58%
2009	21	418	125	43%	33%	52%	52%
2010	25	385	-33	32%	20%	52%	52%
2011	24	407	22	46%	25%	42%	42%
2012	30	513	106	37%	23%	47%	40%
2013	21	359	-154	43%	29%	48%	48%
2014	24	523	-36	33%	38%	50%	38%
2015	25	581	58	24%	40%	28%	36%
	81			39%	39%	49%	49%

Table 4: New Player Arrivals Ebb and Flow (1), Network Moderation (2, 3) and Cultural Distance Constraints (4-7) – Hypotheses Test Results

$\Delta_{i,t}$		(1)	(2)	(3)	(4)	(5)	(6)	(7)
$\Delta_{i,t-1}$		-0.37 (-5.62***)	-0.45 (-5.25***)	-0.52 (-5.11***)	-0.50 (-3.16***)	-0.80 (-3.77***)	-0.45 (-3.55***)	-0.63 (-3.63***)
$X_1C_{i,t-1} * \Delta_{i,t-1}$			0.18 (1.27)					
$X_1E_{i,t-1} * \Delta_{i,t-1}$				0.26 (1.94**)				
$X_1C_{i,t-1} * X_2O_{i,t-1} * \Delta_{i,t-1}$	00				0.16 (0.84)			
	11				0.35 (1.75*)			
	10				-0.17 (-0.55)			
$X_1E_{i,t-1} * X_2O_{i,t-1} * \Delta_{i,t-1}$	00					0.37 (1.56)		
	11					0.61 (2.58***)		
	10					0.40 (1.47)		
$X_1C_{i,t-1} * X_2M_{i,t-1} * \Delta_{i,t-1}$	00						0.10 (0.57)	
	11						0.29 (1.69*)	
	10						-0.24 (-0.84)	
$X_1E_{i,t-1} * X_2M_{i,t-1} * \Delta_{i,t-1}$	00							0.17 (0.79)
	11							0.41 (2.07**)
	10							0.21 (0.80)
$X_3_{i,t-1}$		0.15 (1.40)	0.13 (1.16)	0.11 (1.06)	0.14 (1.34)	0.12 (1.13)	0.14 (1.28)	0.11 (1.07)
Constant		-0.31 (-0.31)	-0.10 (-0.10)	-0.22 (-0.22)	-0.22 (-0.21)	-0.33 (-0.33)	-0.20 (-0.20)	-0.24 (-0.24)
ρ_{ar}		-0.25	-0.23	-0.25	-0.32	-0.27	-0.31	-0.26
σ_u		7.27	6.47	8.46	6.04	9.23	6.47	8.95
σ_e		6.62	6.62	6.58	6.56	6.55	6.56	6.58
ρ_{fov}		0.55	0.49	0.62	0.46	0.67	0.49	0.65
F test that all $u_i=0$		F(80,204) = 1.52***	F(80,203) = 1.34**	F(80,203) = 1.57***	F(80, 201) = 1.34**	F(80, 201) = 1.61***	F(80, 201) = 1.38**	F(80, 201) = 1.58**
R-sq								
within		0.15	0.16	0.16	0.14	0.17	0.15	0.17
across		0.68	0.70	0.63	0.69	0.55	0.68	0.59
overall		0.45	0.48	0.40	0.48	0.35	0.48	0.36
corr(u_i , X_b)		0.44	0.41	0.38	0.36	0.31	0.40	0.34
Model F test		F(2,204) = 17.7***	F(3, 203) = 13.1***	F(3, 203) = 13.2***	F(5, 201) = 6.72***	F(5, 201) = 8.33***	F(5, 201) = 6.93***	F(5, 201) = 7.99***

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¹ Assembling squads (of players), managers and support staff is costly, drives sporting performance and as organizations, differentiates sports clubs. Management teams of professional sports clubs all over the world are faced with the challenge of managing high value player resources toward meeting. European professional soccer leagues are amongst the most popular, competitive and amongst the highest revenue generating of sports leagues in the world. Five of the last seven FIFA World Cups were won by European countries (Germany in 1990 and 2014, France in 1998, Italy in 2006 and Spain in 2010). The professional top division European soccer clubs of England, France, Germany, Italy and Spain are referred to as the ‘big-five’. The big-five has (in 2014-’15) a revenue of \$11.8B which is second (amongst all sports leagues) only to NFL (American Football in the US) whose revenue (2014-’15) is \$13B, and is more than MLB (Major League Baseball) revenue of \$9.5B (2015). Not only does it reach many world markets in terms of television programming, merchandise and sponsorships; its factor market is also globalized (Table 1). Twenty highest rated players (by FIFA in 2016) all play for professional soccer clubs in Europe. Between 1995 and 2015, 13,307 distinct professional soccer players were transferred in to ‘big-five’ clubs, completing more than 30,022 transfers (a player got transferred approximately twice to one of the big-five clubs). These players were from 129 distinct nationalities, and every continent except Antarctica served as a factor market for the big-five. The twenty-five highest valued soccer players were together valued at (in 2014) about \$2Bⁱ, with many players earning tens of thousands of dollars as weekly ‘wages’. Without doubt, the European soccer player transfer market is vibrant with about 14 new player arrivals per ‘big-five’ club per season (year) in the study time period.

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